Amendments to Claims:

This listing of claims replaces prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A 2D data collection sensor comprising:

an image sensor; and

an illumination module coupled to the image sensor, the illumination module comprising a plurality of reflectors that reflect lights of a light source and collectively generate a uniform illumination pattern with sharp edges both for illuminating a target data area and providing visual aiming assistance, wherein there is a distinct light source element per reflector.

Claim 2 (previously presented): The apparatus in claim 1, wherein each reflector comprises an opaque reflective surface with an aperture formed by the reflective surface, the light source emits light onto the reflective surface and through the aperture onto the target data area, wherein a curvature and shape of the reflective surface is curved for optimal uniformity and sharp edges of the illumination pattern; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern.

Claim 3 (previously presented): The apparatus in claim 2 wherein the uniform illumination pattern matches the field of view of the image sensor.

Claim 4 (previously presented): The apparatus in claim 1, wherein each reflector comprises a transparent solid with a reflective internal surface, light from the light source enters the solid, is reflected by the reflective surface and exits through the solid onto the target data area, wherein a curvature and a shape of the reflective is curved for optimal uniformity and sharp edges of the illumination pattern; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern.

Claim 5 (previously presented): The apparatus in claim 4 wherein the uniform illumination pattern matches the field of view of the image sensor.

Claim 6 (Original): The apparatus in claim 2, wherein the light source comprises an LED.

Claim 7 (Currently amended): A 2D imaging barcode reader comprising:

an image sensor; and

an illumination module coupled to the image sensor, the illumination module comprising a plurality of reflectors that reflect light of a light source and collectively generate a uniform illumination pattern <u>with sharp edges</u> both for illuminating a target data area and providing visual aiming assistance for a target barcode, wherein there is a distinct light source element per reflector.

Claim 8 (previously presented): The apparatus in claim 7, wherein each reflector comprises an opaque reflective surface with an aperture formed by the reflective surface, the light source emits light onto the reflective surface and through the aperture onto the target data area, wherein a curvature and shape of the reflective is curved for optimal uniformity and sharp edges of the illumination pattern; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern.

Claim 9 (previously presented): The apparatus in claim 8 wherein the uniform illumination pattern matches the field of view of the image sensor.

Claim 10 (previously presented): The apparatus in claim 7, wherein each reflector comprises a transparent solid with a reflective internal surface, light from the light source enters the solid, is reflected by the reflective surface and exits through the solid onto the target data area, wherein a curvature and a shape of the reflective surface is curved for optimal uniformity and sharp edges of the illumination pattern; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern.

Claim 11 (previously presented): The apparatus in claim 10 wherein the uniform illumination pattern matches the field of view of the image sensor.

Claim 12 (Original): The apparatus in claim 8, wherein the light source comprises an LED.

Claim 13 (previously presented): A 2D data collection illumination pattern for a data collection image sensor, the illumination pattern comprising a shape and uniformity generated by a plurality of reflectors coupled to the data collection image sensor, wherein the reflectors reflect light from a light source, wherein there is a distinct light source element per reflector; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern.

Claim 14 (previously presented): A method for 2D data collection comprising:

projecting an illumination pattern on a target image area, the illumination pattern comprising a shape and uniformity generated by a plurality of reflectors coupled to a data collection image sensor, wherein the reflectors reflect light from a light source, and wherein the illumination pattern provides both image illumination and visual aiming assistance, wherein there is a distinct light source element per reflector; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern; and

reading data from the target image area via an image sensor.

Claim 15 (previously presented): A method for 2D barcode data collection comprising:

projecting an illumination pattern on a target image area, the illumination pattern comprising a shape and uniformity generated by a plurality of reflectors coupled to a data collection image sensor, wherein the reflectors reflect light from a light source, and wherein the illumination pattern provides both image illumination and visual aiming assistance, wherein there is a distinct light source element per reflector; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern; and

reading data from the target image area via an image sensor.